

## Cognitive impairment in diabetes mellitus and hypertension, a possibility of correction

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### Abstract

Objective: to evaluate cognitive functions in patients with type 2 diabetes mellitus (DM2) and hypertension and the efficacy of Ginkgo biloba extract Egb 761®. Patients and methods: 120 patients with DM2 and 50 hypertensive patients with no complications or a history of stroke and/or myocardial infarction, without active complaints of hypomnesia and other cognitive functions were examined. The exclusion criteria were prior stroke and/or myocardial infarction; clinically significant diseases of the peripheral arteries and major arteries of the head; DM2 decompensation; glomerular filtration rate <60 ml/min; proliferative retinopathy; and other endocrine diseases. The investigators used the following methods for the evaluation of cognitive functions: the Mini-Mental State Examination, the Montreal Cognitive Assessment, and the hand-eye coordination test (Parts A and B). Results and discussion: 85% of the patients with DM2 were found to have cognitive impairments (CI): disorders of attention, short-term memory, and thinking speed. Out of them, 82.5% had moderate CI and 2.5% had dementia. 30% of the hypertensive patients were diagnosed as having moderate CIs and 10% had dementia. At the same time, the degree of CI was higher in the patients with MD2 than in those with hypertension. The use of Egb 761® 240 mg/day for 3 months had a statistically significant positive impact on cognitive functions (improvements in short-term memory, concentration, and thinking speed) and everyday activity. Conclusion: The authors consider that CIs are the first sign of encephalopathy in DM2. It is also noted that DM2 has a more pronounced impact on cognitive functions than hypertension. Egb 761® can be used as an effective drug to treat CI in these diseases.

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### Keywords

Cognitive functions, Cognitive impairment, Diabetes mellitus type 2, Diabetic encephalopathy, Egb 761 ®, Hypertension